

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (original) A method for performing liquid chromatography-mass spectrometry on a chemical mixture comprising at least two prostaglandins, said method comprising:
  - a) performing a liquid chromatographic separation of said mixture under acidic conditions, thereby generating an eluent;
  - b) using sheath flow, adding a basic liquid to said eluent to generate a diluted eluent; and
  - c) performing mass spectrometry on said diluted eluent.
2. (original) The method of claim 1, wherein said prostaglandins are PGD2 and PGE2.
3. (original) The method of claim 1, wherein performing said mass spectrometry comprises ionizing said diluted eluent by electrospray ionization.
4. (canceled)
5. (original) The method of claim 1, wherein performing said mass spectrometry comprises performing tandem mass spectrometry.
6. (original) The method of claim 5, wherein said tandem mass spectrometry comprises MS4.
- 7.-10. (canceled)
11. (previously presented) The method of claim 1, wherein said prostaglandins are isobaric.
12. (previously presented) The method of claim 1, wherein said prostaglandins are isomers.
13. (previously presented) The method of claim 1, wherein performing said mass spectrometry comprises performing mass spectrometry in the negative mode.
14. (previously presented) The method of claim 1, wherein the basic liquid comprises ammonium hydroxide.

15. (previously presented) The method of claim 1, wherein the basic liquid comprises acetonitrile.
16. (previously presented) The method of claim 1, wherein the eluent comprises acetic acid.
17. (previously presented) The method of claim 1, wherein the eluent comprises acetonitrile.
18. (previously presented) A method for performing liquid chromatography-mass spectrometry on a chemical mixture comprising at least two prostaglandins, said method comprising:
  - a) performing a liquid chromatographic separation of said mixture under acidic conditions, thereby generating an eluent;
  - b) using sheath flow, adding a basic liquid to said eluent to generate a diluted eluent; and
  - c) performing tandem mass spectrometry on said diluted eluent.
19. (previously presented) The method of claim 18, wherein said prostaglandins are PGD<sub>2</sub> and PGE<sub>2</sub>.
20. (previously presented) The method of claim 18, wherein performing said mass spectrometry comprises ionizing said diluted eluent by electrospray ionization.
21. (previously presented) The method of claim 18, wherein said liquid chromatographic separation is performed under acidic conditions.
22. (canceled)
23. (currently amended) The method of claim[[ 22]] 18, wherein said tandem mass spectrometry comprises MS<sup>4</sup>.
24. (previously presented) The method of claim 18, wherein said prostaglandins are isobaric.
25. (previously presented) The method of claim 18, wherein said prostaglandins are isomers.

26. (previously presented) The method of claim 18, wherein performing said mass spectrometry comprises performing mass spectrometry in the negative mode.

27. (previously presented) The method of claim 18, wherein the basic liquid comprises ammonium hydroxide.

28. (previously presented) The method of claim 18, wherein the basic liquid comprises acetonitrile.

30. (previously presented) The method of claim 18, wherein the eluent comprises acetonitrile.